REMARKS

Present Status of the Application

Applicant appreciates that claims 5-6 have been allowed and claims 3-4 are considered to be allowable.

The Office Action rejected claims 1-2 under 35 U.S.C. 103(a) as being unpatentable over Langberg et al. (U.S. Patent 6,421,377; hereinafter Langberg) in view of Ikeda (U. S. Patent 5,940,455). Claims 1-6 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Claim Rejections under 35 USC 103

The Office Action rejected claims 1-2 under 35 U.S.C. 103(a) as being unpatentable over Langberg in view of Ikeda. Applicant respectfully traverses the rejections for at least the reasons set forth below.

The present invention (see FIG. 4), the apparatus includes the first-set delay circuits 40, the second-set delay circuits 44. The selector 42 is used to select one from the first-set delay circuits 40 and feed the selected one into the second-set delay circuits 44 for multiplying the coefficients and taking sum.

The features are recited in independent claim 1 as follows:

1. An apparatus of a digital echo canceller that is suitable to use on a full-duplex digital echo transceiver and is used to cancel a produced echo signal, the apparatus comprises:
a plurality of first-set delay circuits installed, wherein each delay circuit has an input and

an output, and are all connected in series, and the first input receives an input signal that transmitted from the full-duplex digital transceiver, and the first-set delay circuits are arranged in groups and each group has N delay circuits;

a ***selector with an input and an output, wherein the input is based on an exhaustive search that chooses to connect to one the outputs of the first delay circuits****;*

a plurality of ***second-set delay circuits****, wherein each circuit has an input and an output and are all connected in series, and* ***the first input is connected to the output of the selector****;*

a plurality of multipliers wherein ***the number of the multipliers is the same as the number of the second-set delay circuits****, and the multipliers are connected respectively to the outputs of the second-set delay circuits, and the transmitting signals from the second-set delay circuits are multiplied respectively to correlation coefficients;*

an adder that adds the results from the multiplication operation together to produce an estimated echo signal, wherein the estimated echo signal cancels the echo signal (Emphasis added).

In re Langberg, the Office Action has noted that Langberg does not disclose the selector for choose one from the *first-set delay circuits* 40. Applicant wants to further point out that, Fig. 4 of Langberg failed to disclose the second-set delay circuits at all. The structure in Fig. 4 of Langber is rather similar to the convention structure in FIG. 2 as the prior art. No second-set delay circuit is expected and, of course, no selector is expected either.

In re Ikeda, the Office Actions has referred to col. 4, line 28-51, which is also related to Fig. 1. Specifically, in Fig. 1 (col. 4, lines 28-30), the TWC generators 9 are connected to a minimum selector 11, so as to select the minimum coefficient for feeding to the FIFO memory 12. It should be noted that, the TWC generators 9 are multiplied (8_1...8_L) and taken sum 10 without using the selection result from the selector 11.

Clearly, Ikeda either does not disclose two sets of delay circuit, in which one of the first-set delay circuits is selected and fed into the first one of the second-set delay circuits by the selector 42, as shown in FIG. 4.

Therefore, Langberg and Ikeda either alone or in combination fail to disclose the features as recited in independent claim 1.

With respect to claim 2, Ikeda disclose that the minimum coefficient is chosen. This does not disclose the features as recited in claim 2 with the features recited in independent claim 1.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 1 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claim 2 patently define over the prior art references as well.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-6 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
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